Cooking Out? Read This First! Principles of Proper Food Safety

By: LT Michael Mero, MS, RD Nutrition Management Department

'Tis the season for grilling, when all through the yard; the sodas and beers were chilling, preparing the food was not very hard. The food was kept cold until ready to cook, each stored properly in its own nook. Remember, foodborne illness is never fun, so read this article on food safety...it will help a ton.

The grilling season is upon us, and with the temperatures soaring to unbelievable highs, it is especially important to take food safety seriously. Food that is stored, prepared, and served properly is more likely to keep its fresh quality and alone keeps people from getting sick from a foodborne illness.

Although any food can be contaminated, moist, high-protein foods on which bacteria can grow most easily are classified as potentially hazardous foods. Some examples of these foods include: milk and milk products, shell eggs, beef, poultry, pork, lamb, fish, sprouts, shellfish, soy-protein foods, sliced melons, tofu, garlic-and-oil mixtures, and cooked beans, rice, and potatoes.

The most common factors that cause foodborne illnesses can be divided into three categories: time and temperature abuse, poor personal hygiene, and cross-contamination. They can more specifically include:

- 1. Failure to properly cool food.
- 2. Failure to thoroughly heat or cook food.
- 3. Adding raw, contaminated ingredients to food that receives no further cooking.
- 4. Allowing foods to stay for too long at temperatures favorable to bacterial growth.
- 5. Failure to reheat cooked foods to temperatures that kill bacteria.
- 6. Cross-contamination of cooked food by raw food or improperly cleaned equipment.

One of the most dangerous food safety hazards are known as biological hazards. Biological hazards are disease-causing micro-organisms, certain plants, and fish that carry toxins, which are poisonous. Once in food, some of these hazards may be very hard to kill or control because some are able to survive freezing and high cooking temperatures. Of these micro-organisms, bacteria are the greatest concern because they can multiply at a very rapid rate within warm, moist, protein-rich, and low in acid foods.

There are three main topics for everyone to focus on when hosting a cookout, or in everyday cooking practices. They are: Storing Food Safely, Keeping Food Safe During Preparation and Service, and the Safe Foodhandler.

Storing Food Safely

Properly storing foods is the first step towards food safety. Here are some important things to know regarding food storage.

- 1. Once you bring foods home from the store, shelve new foods behind the old, so the old foods are used first. Regularly check the expiration dates.
- 2. Maintain your refrigerator temperature at 40° F.
- 3. Store cooked and ready to eat foods on the top shelf of the refrigerator.
- 4. Maintain your freezer temperature at 0° F, and do not thaw and refreeze foods unless they have been thoroughly cooked first.
- 5. Store meat products in the coldest section of the unit (the back of the refrigerator/freezer) and should be used or frozen within two to three days.
- 6. Eggs and dairy products should be stored in their original container and kept until their use-by date.
- 7. Foods must be kept out of the temperature danger zone (40° to 140° F).

Keeping Food Safe During Preparation and Service

Most foods are at highest risk during preparation and service. As foods are thawed, cooked, held, served, cooled, and reheated, they may pass several times during the temperature danger zone of 40° to 140° F. Each time food is handled, it runs the risk of cross-contamination from other food and from food-contact surfaces, such as human hands, cutting boards, and utensils. Prevent potentially hazardous foods from spending more than 4 hours in the temperature danger zone. Below are some important tips on food safety during preparation and service.

- 1. Use properly cleaned and sanitized utensils and practice good personal hygiene.
- 2. Thaw foods in the refrigerator, under water 70°F or lower, as part of the cooking process, or in the microwave if food moved immediately to the cooking area.
- 3. Cook foods higher than their minimum safe internal temperature (temperature guide should be listed in your cookbook).
- 4. For salads and sandwiches, chill all ingredients before making the meal, prepare less than 24 hours before service, use commercially made mayonnaise, and never use raw eggs.
- 5. Keep hot foods hot (140° F or higher) and cold foods cold (40° F or cooler).
- 6. Chill cooked food to 40° F within four hours.

The Safe Foodhandler

Food safety does not just include proper food handling procedures. Good hygiene is vital to food safety. One of the main ways to prevent cross-contamination and the spread of foodborne illness is proper hand washing. You should thoroughly wash your hands after handling raw food; touching your hair, face, or body; sneezing or coughing; smoking; eating or drinking; cleaning; taking out the garbage; using the restroom; or playing with and tending to your children.

This article covered only the basic principles of maintaining food safety. Remember, it is very important in these hot temperatures and during this grilling season that you pay attention to the preparation, service, and storage of your food. You will have a much better time at your Cook-Out if you follow the guidelines presented above.